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| 10/769,033 | 01/30/2004 | Richard John Johnson | 13869.45 | 7601 |

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| EXAMINER |
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BERGIN, JAMES S

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| ART UNIT | PAPER NUMBER |
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3641

DATE MAILED: 06/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/769,033

Applicant(s)

JOHNSON, RICHARD JOHN

Examiner

James S. Bergin

Art Unit

3641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 1/30/2004 & 3/15/2006.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 18-24 is/are pending in the application.
4a) Of the above claim(s) 7-9, 11, 12, 19 and 20 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-6, 10, 13-15, 18 and 21-24 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 30 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/9/2004.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's elections without traverse of Group I, Species 1A, Species 1E and Species 1I, in the reply filed on 3/15/2006 is acknowledged. Claims 1-15 and 18-24 remain pending in the application with claims 7-9, 11-12 and 19-20 being withdrawn from consideration as being drawn to a non-elected species of the elected invention.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 1-6, 10, 13-15, 18 and 21-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the preamble refers to "*A modular explosives cartridge, said cartridge comprising:*" However, the body of the claim leaves it unclear as to whether the applicant is claiming the subcombination of an explosives cartridge (see claim 1, lines 1-6) or the combination of a plurality of explosives cartridges coupled together (see claim 1, lines 6-8)? For the purposes of the art rejection that follows it is assumed that claim 1 is attempting to claim an explosive cartridge rather than coupled explosive cartridges.

In claim 1, lines 6-7, it is unclear whether "*adjacent sealing members*" and "*respective coupling members*" refers to the sealing members and coupling members at each end of the claimed singular "*explosive cartridge*" or whether it also refers the sealing member and coupling member of "*an adjacent explosives cartridge*" that could potentially be coupled to the coupling member of the claimed singular "*explosive cartridge*"? It is noted that the preamble to the claim refers to a "*A modular explosives cartridge, said cartridge comprising*" and not to a plurality of explosive cartridges for coupling together.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-4, 10, 13 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Brown (WO 99/46556).

Regarding claim 1, Brown discloses a modular explosive cartridge comprising: tubular body 5 of explosive cartridge 20 having lockable coupling members 1 and 6 secured on opposite ends thereof, the coupling members 1, 6 each including a sealing membrane 4, 9 to form a sealed closure containing the explosive within the tubular body 5 (see at least Figs. 1 and 2 and page 7, lines 14-16), the coupling members being adapted to engage with the coupling member of an adjacent explosive cartridge. Note that applicant's claim 1 does not positively claim an adjacent explosive cartridge or a

plurality of cartridges connected together with their sealing membrane pierced.

Applicant's claim 1 claims an explosive cartridge that has intact sealing membranes that are capable of being pierced if the cartridge was connected to another cartridge having a connector comprising sealing membrane piercing means. Brown's cartridge is capable of being connected to another cartridge and is potentially capable of having its sealing diaphragms pierced although Brown does not specifically disclose piercing the sealing diaphragms.

Regarding claims 2-4 Brown discloses the socket and spigot coupling members 1 and 6 that are releasably engagable with a respective socket or spigot of an adjacent cartridge (see at least page 7, lines 1-7) and that the connectors can comprise a bayonet coupling (see page 7, lines 9-12).

Regarding claim 10, Brown discloses that the coupling members can be integral or affixed to the shell 5 and that the coupling members 1, 6 can be secured to the tubular body 5 by an interference fit, adhesive or other suitable engagement means (page 5, line 29 – page 6, line 20).

Regarding claim 13, the remarkably different shapes of Brown's coupling members 1 and 6 (Figs. 1 and 2) inherently allow an individual to distinguish between the two different coupling members types (members 1 and 6) during assembly of Brown's cartridge.

Regarding claim 15, Brown discloses a plurality of modular explosive cartridges coupled together into an elongate tubular explosive cartridge comprising a continuous column 40 of explosives (see fig. 5 and page 10, lines 16-30).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brown (WO 99/46556) in view of Dorffler et al. (US 5,410,966) or Bill et al. (US 5,831,197).

Brown discloses a modular explosive cartridge as discussed above with regard to claims 1 and 13. However Brown does not specifically disclose color-coding the coupling members.

Dorffler et al. disclose color-coding parts to assist in proper assembly of a model rocket (col. 2, lines 23-28).

Bill et al. disclose color-coding parts to assist in proper assembly of a primer strip (col. 5, lines 20-28).

In view of either Dorffler et al. or Bill et al., it would have been obvious to one of ordinary skill in the art at the time that the invention was made to color code Brown's coupling members so as to assist in the proper assembly of Browns cartridge.

Allowable Subject Matter

9. Claims 5, 6, 18 and 21-24 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Art Unit: 3641

10. The following is a statement of reasons for the indication of allowable subject matter: in claim 5, the piercing member for piercing the sealing membrane of an adjacent cartridge; and in claim 18, a hollow locator body supported on the mounting collar of the spider to locate a detonator via an aperture in the wall of the cartridge into the interior explosive occupied region.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Pollock (US 5,435,250); Thompson (US 4,546,703); Hamilton (US 3,185,091); Hurst et al. (3,926,119); Friant et al. (US 4,000,696); Ducharme (US 4,294,171); Rowley et al. (US 4,348,955); Pack, Hatton-Ward Frank et al. (US 3,504,628); Gremillion (US 5,343,002); McLaughlin (US 4,961,381).

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James S. Bergin whose telephone number is 571-272-6872. The examiner can normally be reached on Monday - Wednesday and Friday, 8.30 - 5.30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 571-272-6873. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3641

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'James S. Bergin', followed by a horizontal line.

James S. Bergin